Chapter 5

INDIA

With an electorate of more than 900 million people, India is a federal, multiparty democracy with an independent judiciary and a vibrant civil society.

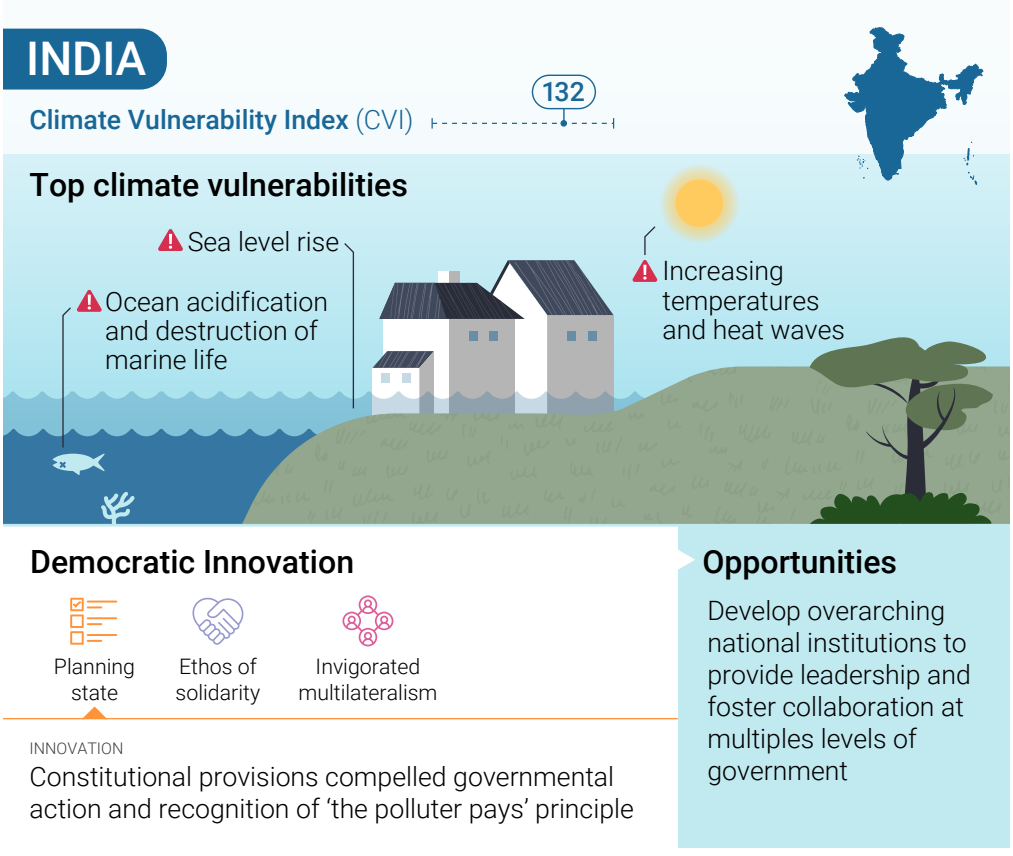
5.1. INTRODUCTION

The Indian Constitution, which came into effect on 26 January 1950, provides for a parliamentary form of government. With an electorate of more than 900 million people, India is a federal, multiparty democracy with an independent judiciary and a vibrant civil society. Apart from a brief period (1975–1977) in which parliamentary democracy was suspended, India has held free and fair elections at regular intervals. International IDEA's report on the Global State of Democracy credits India with holding relatively clean elections but ranks the country poorly in relation to safeguarding civil liberties and checks against executive excesses. It identifies India as a 'backsliding democracy', citing democratic violations during the Covid-19 pandemic, and lists it as a 'major decliner' (International IDEA 2021). Freedom House (Repucci and Slipowitz 2021) ranks India as 'partly free'. In short, democracy in India is passing through a period of great stress and turbulence, linked to growing polarization, authoritarian tendencies, the rapid erosion of individual freedoms and a steady decline in the institutional autonomy of key democratic institutions.

5.2. INDIA'S CLIMATE VULNERABILITIES

India is among the countries most vulnerable to climate change. The 2020 Global Climate Risk Index (CRI) ranks it among the 10 countries

Figure 5.1. **India**



most affected by heatwaves and fifth overall in the CRI (Eckstein et al. 2019). This makes it among the worst-affected countries and highly vulnerable to climate change (FAO n.d.). In addition to increasing temperatures, India is also vulnerable to rising sea levels. According to analysts, 'India's 7500-km long coastline, largely monsoon- and river-dependent livelihoods, and vulnerability to heat and flooding extremes make its people deeply vulnerable to the impacts of climate change' (Chandra, Karkun and Mathew 2021). Approximately 33 per cent of the country's coastline receded between 1990 and 2006 and coastal erosion is expected to take place 1.5 times more quickly in the next three decades than in the preceding three decades (Youdon 2020). This poses a threat to coastal wetlands such as mangroves

and will lead to the destruction of marine life and marine-based occupations such as fishing and adversely affect biodiversity and coastal populations through increased flooding. A report by the Intergovernmental Panel on Climate Change (IPCC) highlights that 28.6 million people in six Indian cities will face floods due to rising sea levels (IPCC 2021).

India's climate vulnerability has been measured by the Notre Dame Global Adaptation Initiative (ND-GAIN), which 'summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience' (University of Notre Dame 2022a). India is ranked 111st of 182 countries in the ND-GAIN Index for 2020, with a high score for vulnerability to climate change and a low score for readiness to adapt to climate change. India scored 132 on vulnerability, making it the 51st most vulnerable country; and is the 104th most ready country (University of Notre Dame 2022a, 2022b). At 111st, India's ranking in the ND-GAIN index is higher than Pakistan (146th) and Bangladesh (164th), the same as Ghana (also 111st), and lower than Sri Lanka (104th) and China (39th) (University of Notre Dame 2022a).

5.3. **CLIMATE CHANGE AND INDIAN LAW**

The Constitution provides that the state should 'endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country'.

The Indian Constitution does not refer directly to climate change, although many of its provisions cover issues related to environmental protection and the promotion of sustainable development, among other things. For example, the Directive Principles of State Policy (DPSP) (see e.g. Mukherjee 2014/15) in the Constitution provide that the state should 'endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country'. This provision was incorporated into article 48A in 1976 (the 42nd Amendment) in response to growing global awareness of environmental degradation and the need for collective action.

Over the decades, India has enacted a number of statutes that address different aspects of environmental protection and climate change. Prominent examples include: the Wildlife (Protection) Act, 1972; the Water (Prevention and Control of Pollution) Act, 1974; the Water (Prevention and Control of Pollution) Cess Act, 1977; the

Forest (Conservation) Act, 1980; the Air (Prevention and Control of Pollution) Act, 1981; and, most notably, the Environment (Protection) Act, 1986. In addition, India has enacted various supporting statutes in recent years, such as: the National Environment Tribunal Act, 1995; the National Environment Appellate Authority Act, 1997; the Forest Rights Act (FRA), 2006; and, importantly, the National Green Tribunal Act, 2010. Although these statutes touch on climate change in one way or another, they do not comprehensively address the challenges of global climate change (Sinha 2021).

5.4. **THE ROLES OF VARIOUS LEVELS OF GOVERNMENT**

The central government focuses on developing national policies, enacting federal legislation and participating in international conventions, treaties and dialogues on climate change. Technically, India's national efforts are led by the Ministry of Environment, Forest and Climate Change (MEFCC). The MEFCC mobilizes the national response at multiple levels, overseeing the Central and State Pollution Boards, and coordinating statutory bodies on the environment. While India lacked a visible and coherent institutional response for many years, the establishment of the Prime Minister's Council on Climate Change (PMCCC) in 2007 was a turning point that galvanized country-wide efforts to fight climate change. In the same year, Prime Minister Manmohan Singh created the position of Special Envoy on Climate Change to lead major initiatives in close consultation with the Prime Minister's Office (PMO).

While India lacked a visible and coherent institutional response for many years, the establishment of the Prime Minister's Council on Climate Change in 2007 was a turning point that galvanized country-wide efforts to fight climate change.

Since taking office in 2014, Prime Minister Modi has increasingly centralized climate policy and made key decisions to increase the visibility of India's global response. Examples of national policies under his leadership include the National Action Plan on Climate Change (NAPCC) and the Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM) (NRDC 2020). The Modi government abolished the office of Special Envoy but created a new institution—the Apex Committee for Implementation of the Paris Agreement (AIPA)—in November 2020 (Sangomla 2020). The AIPA has powers to invite expertise from industry, research institutions and civil society to provide technical inputs. Modi has taken a keen

interest in championing initiatives to address climate change, and the PMO has emerged as the centre of India's coordinated national response. In addition, the federal think tank, NITI Aayog, has acted as a 'brains trust' on the climate change response.

State governments have played crucial roles in developing and sustaining regional partnerships on mitigating climate change.

Notwithstanding the above, the real action takes place at the subnational levels. State governments have played crucial roles in developing and sustaining regional partnerships on mitigating climate change. According to the Climate Group's report, *Driving Climate Action: State Leadership in India*, there were '32 state action plans on climate change' in 2019 (Climate Group 2019: 9). These fall under a subnational institutional framework known as State Action Plans on Climate Change (SAPCC) (Centre for Policy Research n.d.).

At the local level, Panchayats (rural local bodies) and Urban Local Bodies (ULBs) have become increasingly involved in instituting climate-friendly policies. The Kerala Institute of Local Administration, for instance, has developed strategies for addressing climate change, and 270 Panchayats in Kerala participate in a programme on developing climate-friendly governance responses (Nair 2018). Similarly, the ClimateSmart Cities Assessment Framework (Government of India n.d.), initiated by the Ministry of Housing and Urban Affairs, encourages ULBs to develop and implement policies on climate change. However, Panchayats and ULBs face constraints on operationalizing climate-friendly policies, due to the inadequate devolution of functions and finances (Sethi et al. 2021).

Beyond the government, numerous actors are active on climate-related issues and the major political parties are taking climate threats seriously (Dubash 2013a). For example, during the 2019 general election, the two major political parties—the ruling Bharatiya Janata Party (BJP) and the Indian National Congress (INC)—made commitments to address climate change issues in their party manifestos (Doslak and Prakash 2019). Smaller and regional parties—especially those from states facing the impact of climate change, such as extreme weather events—have also incorporated climate change issues into their agendas (Yadav 2022). However, while there is consensus on India's strategy and response to climate change in various international forums, cross-party consensus on the climate response is yet to emerge.

While the political discourse on the climate crisis is still evolving, India's vibrant civil society has been persistent in putting climate change initiatives centre stage. Some pioneering civil society organizations—such as the Centre for Science and Environment (CSE) and the Energy and Resources Institute (TERI), formerly the Tata Energy Research Institute—engaged with climate change/environmental issues early on, and have carried out impressive work and advocacy to reframe the global debate on climate change (Dubash 2013b). The CSE's work, such as on per capita based formulations on equity and the responsibility of the industrialized countries for their emissions—has provided a foundation for India and other countries from the Global South to actively negotiate in global climate forums. TERI has contributed to and shared the findings of IPCC reports in global negotiations (Dubash 2013b). In addition to the CSE and TERI, other prominent environmental civil society organizations (CSOs) have led nationwide advocacy efforts on restoring the fragile ecology of the Himalayan states.

5.5. **THE JUDICIARY AND CLIMATE CHANGE**

It is the judiciary that has shaped the cumulative national response to environmental protection and climate change.

Among India's formal institutions, it is the judiciary that has shaped the cumulative national response to environmental protection and climate change. Since the late 1980s, the judiciary has delivered several landmark judgments on environmental protection that have touched on climate change in one way or another. The courts have done this by imaginatively interpreting existing constitutional provisions, such as articles 48A and 51A, under the DPSP to compel action by the executive branch (see Mauskar and Modak 2021). As noted above, article 48A states that: 'The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country'. Article 51A contains fundamental duties applicable to 'every citizen of India' and, at sub-section (g), states that its citizens have a duty 'to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures'.

Unsurprisingly, environmental organizations and activists have approached the Supreme Court and the various High Courts to commence Public Interest Litigation (PIL), in cases that

target industrial pollution, air pollution in metro-cities, big dams, deforestation and the protection of ecologically fragile zones, among other things. For instance, in *M.C. Mehta* v *Union of India* (1987), a case concerning an oleum gas leak, the Supreme Court imposed penalties on industries involved in hazardous and harmful activities. The Court implicitly recognized 'the polluter pays principle' (see Shastri 2000). More specifically, the Supreme Court stated:

> We would therefore hold that where an enterprise is engaged in a hazardous or inherently dangerous activity and harm results to anyone on account of an accident in the operation of such hazardous or inherently dangerous activity resulting, for example, in escape of toxic gas, the enterprise is strictly and absolutely liable to compensate all those who are affected by the accident.
> (Supreme Court of India, *M.C. Mehta v Union of India*, 1987)

In a number of decisions concerning industrial and air pollution, the Supreme Court has linked the right to a pollution-free environment, free air and water with a fundamental right such as the right to life under article 21 (see e.g. *Vellore Citizens Welfare Forum* 1996: paras 13 and 14). The judiciary has gone a step further on environmental activism by setting up the National Green Tribunal (NGT), which is a judicial-led forum for monitoring adherence to environmental or green norms in India. Through the NGT, the judiciary has been trying to fill the enforcement gaps left in legislation such as the Mining Laws, the Water Act and the Environment Protection Act. While India lacks concrete legislation on climate change, in a growing number of instances the NGT is taking steps to address climate-related issues.

5.6. **INDIA'S CLIMATE ACTION IN COMPARATIVE PERSPECTIVE**

The Climate Change Performance Index evaluates and compares the climate protection performance of the European Union and its member states and 57 countries. India ranked 10th in the 2021 index, with a score of 63.98. Sweden ranked 4th with the top score of 74.42 while the United States was ranked 61st with the lowest score of 19.75 (Burck et al. 2020). The top three places were left unoccupied,

as none of the countries was deemed to have 'done enough to prevent dangerous climate change' (Burck et al. 2020: 7). Notably, of the G20 countries in that year, 'only the EU as a whole, along with the UK and India, rank[ed] among *high* performers' (Burck et al. 2020: 6).

5.7. **POLITICAL SHORT-TERMISM AND STRUCTURAL BOTTLENECKS HINDERING EFFECTIVE CLIMATE ACTION**

Like most democracies, India's response to climate threats has been guided by political short-termism, hesitancy and incrementalism.

Like most democracies, India's response to climate threats has been guided by political short-termism, hesitancy and incrementalism. This is evident in its response to reducing India's dependence on fossil fuels, particularly coal-based energy. Despite India's strong pitch on renewables, including promotion of a big-ticket solar initiative by leading the International Solar Alliance in 2015, India continues to rely heavily on coal. This was clearly reflected in its recent pledges at COP 26 in Glasgow. Prime Minister Modi pledged that India would achieve net zero by 2070, but his wording on the use of coal was changed at the last minute from 'phase out' to 'phase down'.

This illustrates a major dilemma for India—coal is critical to its energy security and contributes significantly to the employment and livelihoods of millions of Indians living in some of the least developed areas of the country (Ramachandran and Pai 2021). More than 4 million people are directly or indirectly employed in the coal industry, and as many as 500,000 pensioners depend on the coal sector (Ramachandran and Pai 2021). The closure of coal mines would lead to considerable unemployment and devastate local communities. Coal is also the cheapest and most available mineral for driving India's quest for electrification in all households to help close the gap between India and the developed world. In addition, the continuation of coal mining is supported by an influential lobby of labour unions, media outlets, pressure groups, NGOs, and small and large businesses (Swarnakar 2019), many of which are strongly invested in maintaining the status quo. The growing business–politics nexus and the opaque nature of political finance, particularly since the introduction of electoral bonds in 2018, is likely to have a decisive bearing on policies and regulation on phasing out fossil fuels (Price 2021).

Successive governments and political parties have therefore played it safe on coal and its eventual replacement with cleaner renewable options. Furthermore, political resolve has weakened in the face of large emitters such as the United States and China showing little commitment to ending their dependence on coal. Thus, in multilateral climate change and other global forums, including the G-77, India has used the lack of commitment on fossil fuels shown by the developed West and the funding required by developing countries for a green transition to extract concessions on phasing out coal.

As noted above, the real challenge to India's green transition comes from its domestic politics.

As noted above, the real challenge to India's green transition comes from its domestic politics. Any policy response to climate threats becomes deeply entangled in India's competitive federal structure. The priorities of subnational governments and the accompanying adversarial politics often act as roadblocks to a coherent national response. The provision of free power to farmers in Punjab, Haryana and other states provides a useful example. While the policy was intended to help farmers, especially those who grow water-intensive crops such as wheat, rice and sugar cane, it has resulted in a climate crisis across a vast region as the water table has depleted alarmingly in recent years (Ghosal 2021). Finding a solution to this issue will not be easy, as farmers constitute a large voting bloc and governments fear the likely political backlash. The federal government's recent attempt to alter farm subsidies (i.e. the minimum support price and reform of the fertilizer sector) led to massive year-long protests by farmers from these states, and ultimately forced the government to withdraw much needed reforms (Sharma 2021). Thus, competitive populism and electoral compulsion present major obstacles to bold but unpopular policies to address climate change.

5.8. THREATS TO INDIA'S DEMOCRACY

Climate-related events such as exposure to rising sea levels are causing millions of people from ecologically fragile regions to migrate to the cities. The threats posed by climate change will inevitably challenge state capacity and democratic stability. The under-funding and limited empowerment of vital institutions mean that most Indian cities do not have the capacity or resources to accommodate millions of environmental migrants or climate refugees (Patel 2021).

Frequent climate disasters in the form of floods, cyclones and droughts are disrupting the lives of millions and increasingly becoming electoral issues that can decide the fate of governments at the subnational level. For instance, in 2021, the mismanagement associated with Cyclone Amphan became a major issue during the assembly election in West Bengal (S. Chakraborty 2021). Similarly, water scarcity and drought in the vast region of Vidharbh in the state of Maharashtra frequently test the state's capacity and have played a decisive role in electoral outcomes. In short, climate change poses the single largest non-traditional threat to democratic politics. India is a diverse, strongly federal, heavily populated country where many areas are beset by poverty and a lack of resources. This makes these challenges far more serious than those in other large democracies.

Notwithstanding India's vulnerabilities, given its considerable experience of tackling disasters, it has the capacity to weather climate storms. Climate change poses a serious challenge but provides India with an opportunity to become energy secure by reducing both its dependency on oil and the huge drain on its foreign exchange reserves.

5.9. **CAN INDIA INSULATE ITS DEMOCRACY FROM CLIMATE THREATS?**

India's formal democratic institutions have been paying closer attention to the threats emerging from climate change, and recent parliamentary discussions have placed considerable emphasis on climate threats. Rousing debates on climate-related issues and India's preparedness have taken place between the government and opposition in both houses of parliament (Nandi 2021). The same can be said in state legislatures, particularly those most vulnerable to extreme weather events, air pollution and climate-induced migration. Thus, the deliberative aspects of democracy are increasingly recognizing the threats posed by climate change, although this has not yet been translated into any major legislative outcomes.

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5.10. **PLANNING STATE**

Conscious of the growing threats presented by climate change, India's former Planning Commission created a subgroup on mitigation and adaptation in 2012, as well as an expert group to make recommendations on low carbon strategies for India. The latter submitted a comprehensive report in 2014 (Planning Commission of India 2014). In this context, India's 12th Five-Year Plan (2012–17) emphasized commitments to reduce greenhouse gas emissions and planned initiatives directed at India's international obligations. Similar objectives were proposed at the state and local government levels. Notably, the 12th Plan encouraged governments to generate funds domestically and through private sector finance. NITI Aayog, the Planning Commission's successor and the federal government's apex policymaking body, has followed the Commission's lead on climate change through focused policies targeting areas such as the phasing out of fossil fuel dependency, renewable energy, a low carbon economy and mitigation. In addition, successive Finance Commissions (the 14th and 15th) have made substantial allocations for adaptation and mitigation efforts related to climate change (L. Chakraborty 2021).

Prior to these plans, India launched its flagship National Action Plan on Climate Change (NAPCC) in 2008. This broadly captured India's vision of ecologically sustainable development. Importantly, it was based on an awareness that climate change action has to proceed in parallel in several interrelated domains—energy, industry, agriculture, water, forests, urban spaces and the fragile mountain environment (Saran 2019). However, the real action is happening at the state level through State Action Plans on Climate Change (SAPCC), which complement national efforts. A number of state governments are investing in climate mitigation strategies and some of the leading states (e.g. Maharashtra) have launched initiatives such as C40 cities, Cities4Forests and the solarization of highways (Chaturvedi 2021). Many states are also rapidly embracing an electric vehicles policy while phasing out old vehicles.

Evidence that India is operating as a planning state in respect of climate change measures is visible in the accelerated efforts to increase renewable energy. Since COP 21, India has been

aggressively pushing solar, wind and other sources of renewable energy. It set up the International Solar Alliance in 2015 (Jayaram 2018), which is slowly having an impact. While India's dependency on coal remains, its renewable capacity has increased rapidly (from 20 GW solar power in 2010 to 96 GW in 2021) and, as per its pledge in Glasgow in November 2021, India has set an ambitious target of generating 500 GW from renewables by 2030 (see Table 5.1). The strategy of reducing India's heavy dependence on fossil fuels by dramatically increasing renewables, through planned and rapid national action, could insulate India's democracy by reducing pollution, enhancing energy security and facilitating India's rise as a global leader in renewable energy.

Table 5.1. **Renewable energy trajectory (non-fossil fuel energy capacity by 2030)**

	Installed capacity (GW) 2019	% of installed capacity 2019	Generation (billion units) 2019	% of generation 2019	Installed capacity (GW) 2030	% of installed capacity 2030	Generation (billion units) 2030	% of generation 2030
Coal and gas	228	63	1,072	80	282	36	1,393	56
Hydro	45	12.5	139	10.1*	61	7.5	206	8
Renewable	82.5	22.7	126	9.2	455	54.5	805	32
Nuclear	6.7	1.9	378	2.7	19	2.3	113	5
Total	**362.2**		**1,715**		**817**		**2,517**	

** Including imports from Bhutan.*
Source: Government of India, Ministry of Power, Central Electricity Authority, 'Report on Optimal Generation Capacity Mix for 2029–30', January 2020, <https://cea.nic.in/old/reports/others/planning/irp/Optimal_mix_report_2029-30_FINAL.pdf>, accessed 6 March 2023.

5.11. **SOLIDARISTIC ETHOS**

Much of the action to counter the threat of climate change is taking place in India's vibrant civil society. Although climate-related programmes are primarily shaped by government, CSOs are providing a much-needed complement to government action. Some of the world's best known environmental campaigns (e.g. preventing the construction of big dams and protecting forests and the fragile

ecology of the Himalayas) were pioneered by activists and affected communities, such as the Chipko movement in the 1970s led by Chandi Prasad Bhatt, and later Sunderlal Bahuguna, to protect the hill forests of Uttarakhand; and the movement to save the Narmada River led by activist Medha Patekar.

These early ecological movements led to the creation of a wider network and forged solidarity across thousands of CSOs in South Asia and other regions of the world. Environmental activists and CSOs with a particular focus on environmental justice, human rights and protecting the poor and communities vulnerable to environmental degradation—and, more recently, to climate change—have found their way on to government policymaking bodies (Swarnakar 2019). While the institutional response to climate change is relatively weak, India's strength in this space resides in the CSOs, community-based associations, youth groups and religious/charitable organizations that have collectivized around a common purpose to fight climate change and its effects.

It should be noted, however, that the CIVICUS Monitor, which rates countries on the degree to which citizens are able to express their views and exercise their rights in the civic space, has classified India as 'repressed' (CIVICUS Monitor 2022a). This means that India is considered to have a 'significantly constrained' civic space where the work of CSOs is 'regularly impeded' and peaceful protests are vulnerable to the use of excessive force by the authorities (CIVICUS Monitor n.d.).

India has championed the importance of adopting a multilateral approach to climate change.

5.12. **INVIGORATED MULTILATERALISM**

Having recognized that climate change is a global challenge that requires global cooperation, India has championed the importance of adopting a multilateral approach to the issue. It is a signatory to the United Nations Framework Convention on Climate Change and has ratified the 2002 Kyoto Protocol. In 2005, together with Australia, Canada, China, Japan, South Korea and the United States, India launched the Asia Pacific Partnership on Clean Development and Climate (Asia Regional Integration Center n.d.). Significantly, India indicated its support for the Paris Agreement by submitting its

Intended Nationally Determined Contribution (INDC) in October 2015, prior to its adoption of the treaty. In 2016, India signed and ratified the Paris Climate Change Treaty, which aims to limit carbon dioxide emissions to prevent average global temperatures from increasing by more than 1.5°C above pre-industrial levels.

India has a bilateral relationship with the United Kingdom, referred to as the '2030 Roadmap', which includes measures to mitigate climate change, such as encouraging clean energy, technology, and transport, as well as protecting biodiversity (British High Commission 2021). Similarly, India has forged strong bilateral relationships with the US (Government of India 2017) and the European Union (Ahuja, Kaushik and Sastry 2021). At COP 26 in 2021, Prime Minister Modi pledged India's commitment to achieve net zero emissions by 2070. These examples illustrate that India has been actively investing in multilateral and global cooperation to fight the threat of climate change, and to obtain specific benefits such as green technology and financial assistance.

The fact that the major political parties are increasingly talking about climate threats is a positive indicator of how the relationship between democracy and climate change can be negotiated in India. As noted above, the respective commitments of the parties are contained in their party manifestos. The ruling BJP and the INC made commitments to fight climate change, albeit in a relatively low-key manner, at the last general election (Doslak and Prakash 2019). The BJP's 45-page manifesto mentions climate change prominently in the context of infrastructure and the party's contribution to renewable energy and the International Solar Alliance. The INC's 55-page election pledge refers to the environment and climate change, as well as climate resilience and disaster management (Doslak and Prakash 2019). Recently, smaller and regional political parties, especially those in the states facing a greater threat from climate change, have been more aggressive in pursuing their agendas on climate-related issues. Increasing media and civil society coverage of the threats posed by climate change means that political leaders from different parties are often seen talking and writing about the issue and discussing how India can prepare for the challenge (Yadav 2022).

To sum up, India has made a significant effort to address climate threats, particularly in relation to safeguarding its vulnerable population and protecting democracy. Nonetheless, India will find it hard to completely insulate its democracy from the growing threat of climate change. India's democratic institutions are vulnerable in the face of its vast geography, its large population with very low per capita incomes, the limited state capacity and the challenge of obtaining the finance and technology required for a green transition. This vulnerability is exacerbated by the fact that climate threats and preparedness are yet to feature strongly in national and subnational policy outlooks. The clearest evidence of this is the absence of national legislation that specifically deals with the challenges of climate change, and the absence of an overarching national institution to provide leadership and foster collaboration at multiple levels of a large and diverse federation.

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